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| 09/625,442      | 07/26/2000  | Patrick Siu-ying Hung | CP0001US            | 8356             |

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EXAMINER

CARLSON, JEFFREY D

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
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3622

DATE MAILED: 03/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/625,442

Applicant(s)

HUNG, PATRICK SIU-YINGO

Examiner

Jeffrey D. Carlson

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NW

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 1/22/04, 3/1/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9, 11-13, 16-20, 22 and 23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-13, 16-20, 22 and 23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This action is responsive to the paper(s) filed 1/22/04 and 3/1/04.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 1, 5, 7, 8, 11, 16-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Mankovitz et al (US5523794).** Mankovitz et al teaches a portable coupon device (portable data coupon) that wirelessly receives data to be stored in the device. The data can then be processed and displayed by the user buttons. The device can display stored coupons as barcodes which are taught to be capable of being scanned as an actual UPC at a point of sale (POS) [fig 1a, 1b].

Regarding claims 1, 5, 11, the device has a wireless receiver 16, processor, RAM and ROM memory, program and display [fig 2]. At least the display driver program [col 4 lines 19-25] manipulates the stored coupon data to render a barcode on the display. Regarding the “means for improving” the [scanning], such is met by the inherent characteristics of Mankovitz et al’s LCD display. Applicant acknowledges that LCD displays inherently provide a strobe rate and persistence level. Mankovitz et al’s strobe rate and persistence level inherently are of sufficient magnitudes to make the invention work; the displayed barcodes can be scanned with a scanning device.

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Mankovitz et al's performance is taken to be an *improved* performance over an LCD having lower strobe rates and/or persistence levels. Official Notice is taken that it is well known that the quality of a barcode output is related to the success in registering an error-free scan. It would have been obvious to one of ordinary skill at the time of the invention to have provided a high quality barcode display so as to avoid errors.

Applicant's claim 11 further defines the "means for improving" [scanning] by describing the persistence as "sufficient...for scanning." The same applies for Mankovitz et al; there are "sufficient" levels of inherent persistence and inherent strobe rate to enable scanning of the displayed barcodes.

Regarding claims 7, 16, Mankovitz et al teaches that the source coupon data is encrypted to ensure that only authorized portable data coupons (portable coupon devices 10) can use the coupons/data [col 5 lines 36-40]; the portable coupon devices 10 are taken to inherently provide decryption of the received decrypted data in order for the coupon devices 10 to provide the authorization security described by Mankovitz et al.

Regarding claim 8, Mankovitz et al teaches that different coupon formats can be displayed [col 5 lines 45-53]. The alphanumeric representation of the coupon can be taken to be a second barcode format, as it is a different representation of the UPC bar-coded version. The alphanumeric data can be "scanned" by an imaging scanner or OCR device.

Regarding claims 17, 20, Mankovitz et al teaches that user/device information is provided in the device memory as a deviceID or userID or PIN for authentication. This

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data is used along with the coupon data to render an authenticated device's coupons [col 5 lines 14-17, col 7 lines 56-60]. Further, Mankovitz et al teaches that images of the user (user data) may be transmitted to the device and stored for later use.

Regarding claim 18, 19, the data can be recalled later to display barcodes that are scanned at the POS [col 8 lines 35-41].

4. **Claim 22 is rejected under 35 U.S.C. 102(b) as being anticipated by Greenberg et al (WO 00/39657).** Greenberg et al teaches the wireless delivery of coupon data to wireless telephones. The phone stores a plurality of coupons and the user can use the phone buttons to browse and display them. The displayed coupon includes a displayed barcode representation of the coupon data so that a POS scanner can scan the coupon to redeem it. [page 16, Figs 3C, 3D].

#### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 2-4, 6, 9, 12, 13 and alternatively claims 7, 8, 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mankovitz et al.**

Regarding claims 2-4, 9, 12, 13, Mankovitz et al teaches an LCD display 22 [col 4 lines 25-27]. Official Notice is taken that it is well known to provide displays with

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various levels of visual clarity by manipulating pixel resolution and sizing as well anti-reflective contrast coatings. It would have been obvious to one of ordinary skill at the time of the invention to have provided any type of well known LCD display having sufficient pixel resolution and sizing as well as well known contrast features such as anti-reflective coatings in order to provide a display of sufficient clarity so that a displayed barcode was capable of being scanned successfully. Further, the plurality of values for each of the various display characteristics disclosed as various operative examples suggests a lack of criticality regarding those characteristic values. One of ordinary skill would have been clearly motivated to routinely experiment with such display characteristics in the display design so that the barcodes were displayed with sufficient clarity so that they can be successfully scanned at the POS. Further, applicant states that displays of lower resolution/quality can still be used with success with scanning systems which require less resolution. The scan rate is dependant on the related tolerances/qualities not only of the barcode, but also on the scanning device. Scanning a displayed barcode is the intent of Mankovitz et al and it would have been obvious to one of ordinary skill at the time of the invention to have provided sufficient resolution/contrast/clarity for the particular requirements of the scanning hardware. Regarding claim 9, the "sufficiently high" strobe rate is met by Mankovitz et al similar to claim 11.

Regarding claim 6, Mankovitz et al does not specify the particular file structure for the stored data, yet it would have been obvious to one of ordinary skill at the time of the invention to have to have used any type of file structure, including related or

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hierarchical file structure as is well known. The particular file structure chosen lacks criticality with respect to the device operation.

Regarding claims 7, 16-20, applicant argues that the decryption does not need to occur in the portable device. Although believed to be inherent as explained above, it would have been otherwise obvious to one of ordinary skill at the time of the invention to have provided the required decryption functionality in the portable coupon device so that copycat devices lacking such decryption ability cannot be used with the system of Mankovitz et al.

Regarding claim 8, applicant acknowledges that there are a plurality of known barcode standards such as UPC, UCC?EAN-128, etc. Mankovitz et al teaches that a single coupon's data can be represented in two formats - alphanumeric, which is easily understandable by humans, and barcode - easily understandable by machines. Official Notice is taken that it is well known to provide computer devices with ability to convert data into different formats such as different languages. It would have been obvious to one of ordinary skill at the time of the invention to have provided the ability for the device of Mankovitz et al to convert the coupon data into several human-readable languages as well as several machine-readable barcode symbologies (formats) so that different POS operators and different POS scanners requiring various barcode formats can process the coupons

**7. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Deluca et al (US5870030) in view of Cathey et al (US6532375). Deluca et al teaches**

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electronic coupons sent wirelessly to a pager having a processor, memory and programming to display a bar-coded version of the coupon data on the screen so that it can be operatively scanned by a POS scanner [col 10 lines 43-67]. Deluca et al does not teach a wireless telephone. Cathey et al discloses the idea of a combined pager and cell phone. It would have been obvious to one of ordinary skill at the time of the invention to have included cell phone circuitry in the communication device of Deluca et al so that communications can be sent to telephones as well as paging systems.

8. **Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Deluca et al in view of Frank et al (US5285496).** Deluca et al teaches electronic coupons sent wirelessly to a pager having a processor, memory and programming to display a bar-coded version of the coupon data on the screen so that it can be operatively scanned by a POS scanner [col 10 lines 43-67]. While Deluca et al alone could be taken to meet the broad “personal digital assistant,” Frank et al discloses the idea of a providing calendaring and appointment functionality with pagers. Such a device is taken to provide a “personal digital assistant” and would have been obvious to one of ordinary skill at the time of the invention to have combined with Deluca et al so that users of Deluca et al’s device could manage schedules/appointments.

9. **Claim 23 is alternatively rejected under 35 U.S.C. 103(a) as being unpatentable over Greenberg et al (WO 00/39657).** Greenberg et al teaches the portable wireless coupon device to be a cellular telephone, pager or the like. It would



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have been obvious to one of ordinary skill at the time of the invention to have provided such functionality in any well known portable wireless computer electronic device, such as a PDA.

### ***Response to Arguments***

10. Applicant's arguments have been fully considered but they are not persuasive. Applicant argues that Mankovitz et al does not provide a means for improving scan rate. As stated above, Mankovitz et al provides "sufficient" strobe rate and "sufficient" persistence so that the displayed coupons can be read with the scanning hardware. Claims 9 and 11 indicates that "sufficient" persistence and "sufficient" strobe rate provide such a "means." Applicant argues that normally devices do not include sufficiently high display quality so that barcodes can be scanned from them. Mankovitz and the Official Notice provide the motivation for a high quality display – so that the barcodes taught can be scanned. Applicant argues that Mankovitz et al does not provide a configurable portable electronic communication device. Examiner not only wholeheartedly disagrees, but fails to see the importance of such an assertion.

Applicant argues that Mankovitz et al is not an electronic wireless transmission receiver. Examiner disagrees. Arguments about signal blockage are moot.

Applicant argues that Mankovitz et al does not provide decryption in the portable device. Mankovitz et al teaches that the source coupon data is encrypted to ensure that only authorized portable data coupons (portable coupon devices 10) can use the coupons/data [col 5 lines 36-40]; the portable coupon devices 10 must inherently

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provide decryption of the received decrypted data in order for the coupon devices 10 to provide the authorization security described by Mankovitz et al.

Applicant argues that Mankovitz et al does not teach the specific physical display properties and argues that Mankovitz et al does not "improve" the display. As stated above, one of ordinary skill would have been clearly motivated to routinely experiment with known display characteristics in the display design so that the barcodes were displayed with sufficient clarity so that they can be operatively scanned at the POS. Further, applicant discloses that displays of lower resolution/quality can still be used with success with scanning systems which require less resolution. Scanning a displayed barcode is the intent of Mankovitz et al and it would have been obvious to one of ordinary skill at the time of the invention to have provided sufficient resolution/contrast/clarity for the particular requirements of the scanning hardware to be used.

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Various techniques for designing coupon symbologies, formats, output quality are discussed in Bushnell, Richard D., et al, Getting started with bar codes, Quad II, Inc., pps 30, 31, 36-38, 43, 53-57, 225-232.
- Sorensen (US6628729) teaches TV signals including coupon data which is sent wirelessly to PDAs.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey D. Carlson whose telephone number is 703-308-3402. The examiner can normally be reached on Mon-Fri 8:30-6p, (off on alternate Fridays).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Stamber can be reached on 703-305-8469. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jeffrey D. Carlson  
Primary Examiner  
Art Unit 3622

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